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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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LEE & HAYES PLLC
421 W RIVERSIDE AVENUE SUITE 500
SPOKANE, WA   99201

EXAMINER
ABEL JALIL, NEVEEN

ART UNIT	PAPER NUMBER
2175	

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MCNTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-31</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-31</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

     If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____ .

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

     a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

DOV POPOVICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-8, 10, 12-14, 17-23, 26-30 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Foody et al. (U.S. Patent No. 6,349,343) in view of Smedley et al. (U.S. Patent

No. 5,761,494).

As to claims 1, 13-14, 21, and 22, Foody et al. discloses an application program interface

(See column 5, lines 59-63, also see column 6, lines 30-35) embodied on one or more computer

readable media (See column 8, lines 40-45, wherein "computer readable media" reads on

"computer"), a network software architecture (See column 6, lines 52-56) comprising:

a first namespace related to data shared by a plurality of data providers (See column 7,

lines 57-61);

a second namespace related to data used in an object-oriented database (See abstract, also

see column 9, lines 65-67, and column 10, lines 1-9);

a third namespace related to data; and

a fourth namespace related to native data types within a server (See column 9, lines 23-

27).

Foody et al. does no disclose user by SQL client and SQL server.

Smedley et al. discloses user by SQL client and SQL server (See abstract, also see

column 2, lines 55-57).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to have modified Foody et al. to include user by SQL client and SQL server.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have modified Foody et al. by the teaching of Smedley et al. to include SQL

because Structured Query Language allows for efficient access paths to specify which data to be

accessed from a database which has evolved to be the standard language of networked serves

leading to reduction in business costs (See Smedley et al. column 1, lines 25-32).

As to claim 2, Foody et al. as modified discloses wherein the SQL server is a Microsoft

SQL Server (See Smedley et al. column 2, lines 1-3, also see column 4, lines 1-2).

As to claim 3, Foody et al. as modified discloses wherein the first namespace includes a

data adapter class to exchange data between a data source and a data set (See column 10, lines

10-25).

As to claim 4, Foody et al. as modified does not disclose wherein the first namespace

includes a data column mapping class to map column names from a data source to column names

in a data table.

Smedley et al. discloses wherein the first namespace includes a data column mapping

class to map column names from a data source to column names in a data table (See column 4,

lines 23-47, also see column 5, lines 32-38).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to have further modified Foody et al. as modified to include wherein the first

namespace includes a data column mapping class to map column names from a data source to

column names in a data table.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have further modified Foody et al. as modified by the teaching of Smedley et al. to

include wherein the first namespace includes a data column mapping class to map column names

from a data source to column names in a data table because it allows for accuracy and faster

processing of the database conversion operations.

As to claim 5, Foody et al. as modified does not disclose wherein the first namespace

includes a data table mapping class to map data returned from a query of a data source and a data

table.

Smedley et al. discloses wherein the first namespace includes a data table mapping class

(See column 6, lines 43-44) to map data returned from a query of a data source and a data table

(See column 13, lines 1-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to have further modified Foody et al. as modified to include wherein

the first namespace includes a data table mapping class to map data returned from a query of a

data source and a data table.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have further modified Foody et al. as modified by the teaching of Smedley et al. to

include wherein the first namespace includes a data table mapping class to map data returned

from a query of a data source and a data table because it allows for accuracy and faster

processing of the database conversion operations.

As to claim 6, Foody et al. as modified discloses wherein the first namespace (See

column 10, lines 1-25) includes a row update class to indicate when an update to a row is started

(See column 2, lines 51-59, also see Smedley et al. column 1, lines 15-22, wherein "started"

reads on "transaction cost").

As to claim 7, Foody et al. as modified discloses wherein the first namespace (See

column 10, lines 1-25) includes a row update class to indicate when an update to a row is

completed (See column 2, lines 51-59, also see Smedley et al. column 1, lines 15-22, wherein

"completed" reads on "transaction cost").

As to claim 8, Foody et al. as modified discloses wherein the to second namespace (See

column 10, lines 1-25) includes a command builder class to automatically generate SQL

statements for data table updates (See Smedley et al. column 6, lines 7-17).

As to claim 10, <u>Foody et al.</u> as modified discloses wherein the third namespace (See column 10, lines 1-25) includes a command builder class to automatically generate SQL statements for data table updates (See <u>Smedley et al.</u> column 6, lines 7-17).

As to claim 12, <u>Foody et al.</u> as modified discloses wherein the third namespace includes a data adapter class (See column 10, lines 10-25) to exchange data between a data set and an SQL server for retrieving and saving data (See <u>Smedley et al.</u> column 3, lines 58-67, and column 4, lines 1-2).

As to claim 17, <u>Foody et al.</u> as modified discloses further comprising a data column collection class to identify the type of data each data column in a data table can contain (See column 11, lines 1-20, wherein "table" reads on "database").

As to claim 18, <u>Foody et al.</u> as modified discloses further comprising a data relation class to relate two data table objects to each other (See column 2, lines 51-59, also see <u>Smedley et al.</u> column 1, lines 15-22).

As to claim 19, <u>Foody et al.</u> as modified discloses further comprising a data row collection class to identify data stored in a data table (See column 11, lines 26-32, also see <u>Smedley et al.</u> column 1, lines 15-22, also see <u>Smedley et al.</u> column 7, lines 14-35).

As to claim 20, <u>Foody et al.</u> as modified discloses further comprising a property

collection class to add custom properties to a data table (See column 11, lines 26-32).

As to claim 23, <u>Foody et al.</u> as modified discloses wherein the common namespace

includes:

a data adapter class to exchange data between a data source and a data set (See column

10, lines 10-25);

a row update class to indicate when an update to a row in a data table is completed (See

column 2, lines 51-59, also see <u>Smedley et al.</u> column 1, lines 15-22).

<u>Foody et al.</u> as modified does not disclose a data column mapping class to map column

names from a data source to column names in a data table;

a data table mapping class to map data returned from a query of a data source and a data

table.

<u>Smedley et al.</u> discloses a data column mapping class to map column names from a data

source to column names in a data table (See column 4, lines 23-47, also see column 5, lines 32-

38);

a data table mapping class to map data (See column 6, lines 43-44) returned from a query

of a data source and a data table (See column 13, lines 1-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to have further modified <u>Foody et al.</u> as modified to include a data column

mapping class to map column names from a data source to column names in a data table; a data

table mapping class to map data returned from a query of a data source and a data table.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have further modified Foody et al. as modified by the teaching of Smedley et al. to

include a data column mapping class to map column names from a data source to column names

in a data table; a data table mapping class to map data returned from a query of a data source and

a data table because it allows for accuracy and faster processing of the database conversion

operations.

As to claims 26, 27, and 28, Foody et al. discloses a computer system (See column 231,

lines 2-9) including one or more microprocessors (See column 13, lines 42-49) and one or more

software programs (See column 231, lines 2-9, wherein "software programs" reads on

"executable"), the one or more software programs utilizing a application program interface to

request services from an operating system (See column 5, lines 59-63, also see column 6, lines

30-35), the application program interface (See column 5, lines 59-63, also see column 6, lines

30-35) including separate commands to request services consisting of the following groups of

service (See column 12, lines 60-67, and column 13, lines 1-7, wherein "groups of service" reads

on "functions"), a method for managing network and computing resources for a distributed

computing system (See column 4, lines 39-49):

calling one or more first functions (See column 12, lines 32-47) to facilitate sharing of

data among multiple data providers (See column 6, lines 52-63, also see column 4, lines 39-49);

calling one or more second functions (See column 12, lines 32-47) to facilitate accessing

object-oriented databases (See column 10, lines 10-25, also see column 2, lines 51-59);

calling one or more fourth functions (See column 12, lines 32-47) to facilitate server

operations (See column 16, lines 11-34).

Foody et al. does no disclose calling one or more third functions to facilitate SQL client

operations, and SQL server.

Smedley et al. discloses SQL (See abstract, also see column 2, lines 55-57).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to have modified Foody et al. to include calling one or more third

functions to facilitate client operations; and SQL server.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have further modified Foody et al. as modified by the teaching of Smedley et al. to

include SQL because Structured Query Language allows for efficient access paths to specify

which data to be accessed from a database which has evolved to be the standard language of

networked serves leading to reduction in business costs (See Smedley et al. column 1, lines 25-

32).

As to claim 29, Foody et al. as modified discloses wherein the first functions to comprise

functions for exchanging data between a data source and a data set (See column 10, lines 10-25),

and indicating when an update to a row is completed (See column 2, lines 51-59, also see

Smedley et al. column 1, lines 15-22).

Foody et al. as modified does not disclose mapping column names from a data source to

column names in a data table.

Smedley et al. discloses mapping column names from a data source to column names in a
data table (See column 6, lines 43-44, also see column 13, lines 1-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the
invention was made to have further modified Foody et al. as modified to include mapping
column names from a data source to column names in a data table.

It would have been obvious to one of ordinary skill in the art at the time the invention
was made to have further modified Foody et al. as modified by the teaching of Smedley et al. to
include mapping column names from a data source to column names in a data table because it
allows for accuracy and faster processing of the database conversion operations.

As to claim 30, Foody et al. as modified discloses wherein the second functions comprise
functions for generating SQL statements for data table updates and enabling a connection to a
data source (See Smedley et al. column 6, lines 7-17).

3.   Claims 9, 11, 24-25, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Foody et al. (U.S. Patent No. 6,349,343) in view of Smedley et al. (U.S. Patent No.
5,761,494) as applied to claims 1-8, 10, 12-14, 17-23, 26-30 above, and further in view of Pettus
(U.S. Patent No. 6,360,266).

As to claim 9, Foody et al. as modified discloses wherein the second namespace (See
column 7, lines 8-20).

Foody et al. does not disclose includes a connection class to enable a connection to a data source.

Pettus discloses includes a connection class to enable a connection to a data source (See column 17, lines 47-52, also see column 9, lines 49-60, and see column 6, lines 21-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Foody et al. as modified to include a connection class to enable a connection to a data source.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Foody et al. as modified by the teaching of Pettus to include a connection class to enable a connection to a data source because it provides for security and faster connection leading to reduction in business costs.

As to claim 11, Foody et al. as modified discloses wherein the third namespace (See column 7, lines 8-20) to an SQL server data source (See Smedley et al. column 3, lines 9-36).

Foody et al. as modified does not disclose includes a connection class to represent a unique session.

Pettus discloses includes a connection class to represent a unique session (See column 13, lines 15-35, also see column 13, lines 47-58).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Foody et al. as modified to include a connection class to represent a unique session.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Foody et al. as modified by the teaching of Pettus to include a connection class to represent a unique session because it provides for security and faster connection leading to reduction in business costs.

As to claim 24, Foody et al. as modified discloses wherein the object-oriented namespace (See column 1, lines 14-26, also see column 10, lines 10-25) includes:

a command builder class to generate SQL statements for data table updates (See Smedley et al. column 6, lines 7-17); and

Foody et al. as modified does not disclose a connection class to enable a connection to a data source.

Pettus discloses a connection class to enable a connection to a data source (See column 17, lines 47-52, also see column 9, lines 49-60, and see column 6, lines 21-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Foody et al. as modified to include a connection class to enable a connection to a data source.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Foody et al. as modified by the teaching of Pettus to include a connection class to enable a connection to a data source because it provides for security and faster connection leading to reduction in business costs.

As to claim 25, <u>Foody et al.</u> as modified discloses wherein the SQL client namespace

(See <u>Smedley et al.</u> abstract, also see <u>Smedley et al.</u> column 2, lines 1-16, also see <u>Foody et al.</u>

column 7, lines 8-20) includes:

a command builder class to generate SQL statements for data table updates (See <u>Smedley</u>

<u>et al.</u> column 6, lines 7-17);

a data adapter class to exchange data (See column 18, lines 37-52) between a data set and

an SQL server for retrieving and saving data (See <u>Smedley et al.</u> abstract, also see <u>Smedley et al.</u>

column 3, lines 9-36).

<u>Foody et al.</u> does not disclose a connection class to represent a unique session data

source.

<u>Pettus</u> discloses a connection class to represent a unique session to data source (See

column 13, lines 15-36, and column 13, lines 47-58).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to have further modified <u>Foody et al</u>. as modified to include a connection

class to represent a unique session to data source.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to have further modified <u>Foody et al</u>. as modified by the teaching of <u>Pettus</u> to include a

connection class to represent a unique session to data source because it provides for security and

faster connection leading to reduction in business costs.

As to claim 31, <u>Foody et al.</u> as modified discloses wherein the third features comprise

functions for generating SQL statements for data table updates (See <u>Smedley et al.</u> column 6,

lines 7-17) to an SQL server data source (See <u>Smedley et al.</u> abstract, also see <u>Smedley et al.</u> column 3, lines 9-36).

<u>Foody et al.</u> as modified does not disclose and representing a unique session.

<u>Pettus</u> discloses and representing a unique session (See column 13, lines 15-36, and column 13, lines 47-58).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified <u>Foody et al.</u> as modified to include representing a unique session.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified <u>Foody et al.</u> as modified by the teaching of <u>Pettus</u> to include representing a unique session because it provides for security and faster connection leading to reduction in business costs.

4.   Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Foody et al.</u> (U.S. Patent No. 6,349,343) in view of <u>Smedley et al.</u> (U.S. Patent No. 5,761,494) as applied to claim 14 above, and further in view of <u>Mellmer</u> (U.S. Patent No. 6,446,253).

As to claim 15, <u>Foody et al.</u> as modified does not disclose further comprising a constraint Class to maintain the integrity of data in a data table.

<u>Mellmer</u> discloses further comprising a constraint Class to maintain the integrity of data in a data table (See column 6, lines 62-67, wherein "constraint class" reads on "access control").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Foody et al. as modified to include further comprising a constraint Class to maintain the integrity of data in a data table.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Foody et al. as modified by the teaching of Mellmer to include further comprising a constraint Class to maintain the integrity of data in a data table because it provides for security and class boundaries causing reduction in business costs.

As to claim 16, Foody et al. as modified does not discloses further comprising a data column class to create a data table.

Mellmer discloses further comprising a data column class to create a data table (See column 6, lines 45-49, wherein "table" reads on "hierarchy").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Foody et al. as modified to include further comprising a data column class to create a data table.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Foody et al. as modified by the teaching of Mellmer to include further comprising a data column class to create a data table because it creates ease of update and data manipulation allowing for increase in database processing.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Neveen Abel-Jalil whose telephone number is 703-305-8114.

The examiner can normally be reached on 8:00AM-4: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-746-7239 for regular

communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

Neveen Abel-Jalil
March 23, 2003

DOV POPOVICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100